

ORBITER

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SIRIUS 

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SB4000 Boombox User Guide

FCC Regulations

This unit complies with the interference limits relative to a Class B digital device, applicable under Part 15 of the FCC Rules regarding installation in a residential environment. If the unit is not installed in accordance with these instructions, it could cause harmful interference to audio or television reception. If this condition persists after corrective action, consult your dealer or experienced installation facility.

Cautions and Warnings

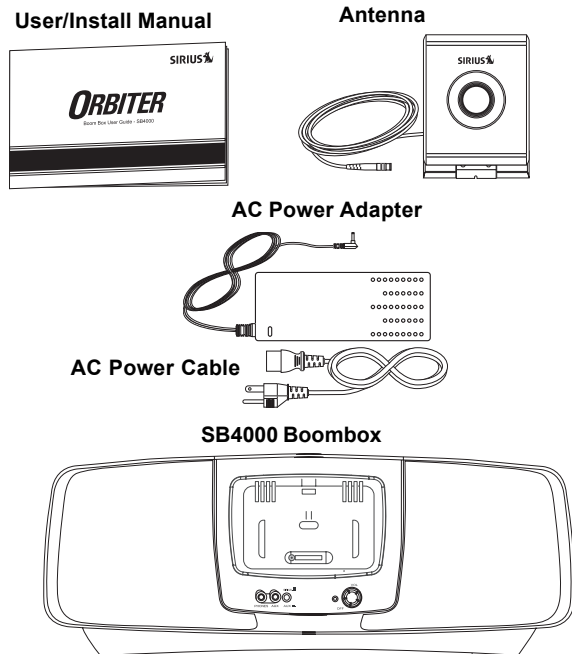
1. Within the home, do not install the SB4000 Boombox in a position that obstructs viewing of any home entertainment component, such as television, or stereo system indicators and displays.
2. Take care when using the SB4000 Boombox for prolonged periods in direct sunlight to ensure that surfaces do not get excessively heated, potentially causing deformation. Do not operate in areas subject to extreme temperatures; do not operate the unit in moist areas, in rain, or in areas adjacent to water such as pools, hot tubs, etc.
3. When outdoors, position the SB4000 and antenna where there are no obvious satellite signal obstructions such as high terrain, trees, overhangs, etc.
4. When installed indoors, unplug the AC Power Adapter from the wall outlet when the SB4000 is not to be used for an extended period of time. If batteries are installed, set the Power ON/OFF-VOL control to the Off position to prevent unintentional battery discharge, or remove the batteries.
5. To avoid possible damage to the SB4000 Boombox caused by battery leakage, it is recommended that the batteries be removed when the Boombox is not being used for an extended period of time.
6. Do not install or place the SB4000 on an inclined or unstable surface.
7. By adhering to these warnings and safety considerations, serious accidents and/or personal injury can be avoided.

Installation/Wiring Precautions

1. If using the AC Power Adapter, make sure to connect the AC Power Cable to the AC Power Adapter first. Then after making the Antenna connections, make the final connection of the AC Power Cable to a suitable AC outlet.
2. Incorrect installation may cause damage to the system.
3. During antenna placement/installation, refer to page 6 for the Antenna Aiming procedure outlined in this guide.

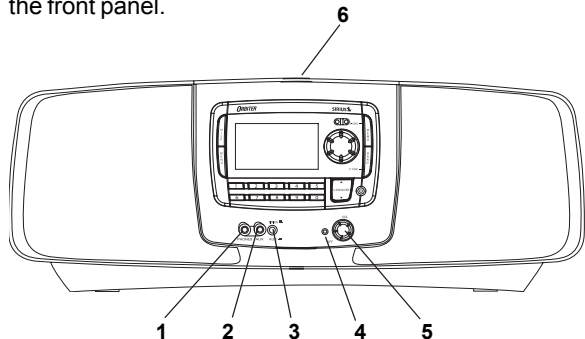
Setting Up and Installing Your Portable Boombox

NOTE: The SIRIUS® signal can be received and processed virtually anywhere as long as there are no obvious satellite signal obstructions such as high terrain, trees, overhangs, etc. However, signal reception depends mainly on where you are, geographically, and where this place is with respect to the orbital paths of the Sirius satellites. In placing the antenna, therefore, these factors must be taken into account.



Boombox Controls

The Orbiter™ SB4000 Boombox provides two control buttons, a Power On/Off -Volume control, and a push-button to toggle between Satellite Radio or an auxiliary audio input signal. A power-on LED is also located on the front panel.



1. **PHONES:** Accepts a stereo headphone jack to provide private listening capability for the Boombox.
2. **MODE Selector Push-button:** Push button toggles between Satellite Radio and an external audio input signal (MP3, CD, etc.) present at the AUX input jacks.

3. **AUX Jack:** Accepts an audio input signal from an external audio device. When using the AUX audio input, turn the Orbiter SR4000 Off to preserve battery power. Adjust the volume level of the external audio device to obtain an audio output from the SB4000. The volume control on the external audio device should be set to a mid-range level.

4. **Power On/Low Battery LED:** The LED lights green when the Power On/Off Switch- VOL control is rotated clockwise (CW) to the ON Position. In addition, the LED will light red to alert the user that the batteries are nearly discharged. This condition may cause degraded performance of the SB4000.

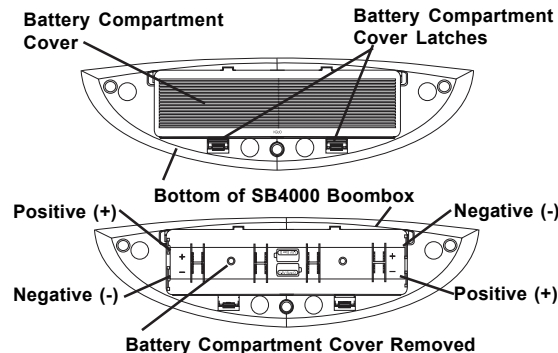
5. **Power ON/OFF Switch-VOL Control:** Applies power to the Boombox when rotated clockwise (CW) from the Off position. When in the ON position, increase or decrease the volume of the audio output signal from the SB4000. To increase the volume level rotate the control CW. To decrease the volume level, rotate the control counterclockwise (CCW).

6. **Release Button:** Press this button to release and remove the Orbiter SR4000 from the SB4000 Boombox cradle.

1. **Battery Installation:** Your Boombox can operate independently of AC power by installing 8 "D" batteries as follows:

NOTE: The batteries are bypassed automatically whenever the supplied AC Adapter is plugged into the DC 12V jack on the back panel.

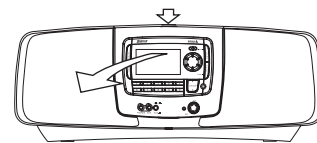
- a. Turn the Boombox upside down to access the battery compartment.
- b. Push the battery cover latches forward and flip up the battery compartment cover to the open position.
- c. Insert eight 8 "D" batteries observing battery polarity as shown, then close the cover.

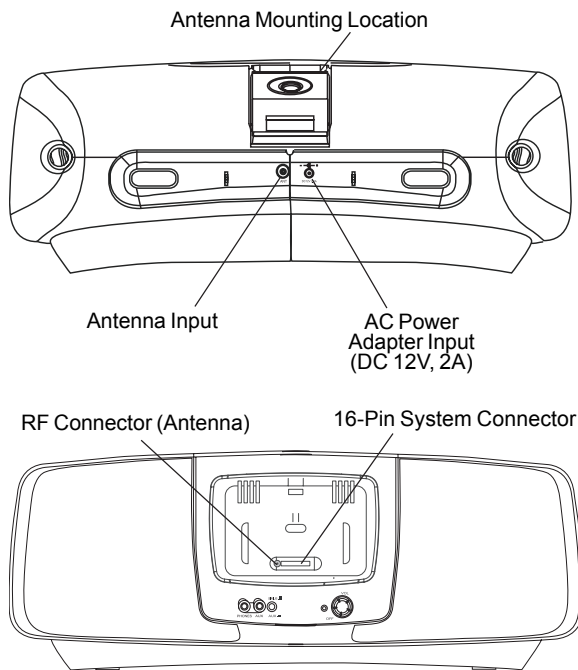


2. **Cabling Interconnections:** You can begin to enjoy Sirius Satellite Radio as soon as the Orbiter SR4000 Receiver and SB4000 Boombox installation are complete. Set up your Orbiter SB4000 by following the interconnect diagram.

3. **Installing the SR4000 Receiver in the SB4000 Boombox:** Place the SR4000 Receiver in the cradle so that the guides are lined up with the SB4000 Boombox cradle. Then push the SR4000 down to engage the connectors. The SR4000 will snap into place. Apply power to the SB4000 by rotating the VOL control clockwise from the OFF position; the LED indicator lights green. If the SR4000 does not turn on at the same time, press the RED Power ON/OFF button in the upper left corner of the SR4000 front panel.

4. **Removing the SR4000 Receiver From the SB4000 Boombox:** Press and hold the EJECT button on top of the Boombox; the SR4000 Receiver will partially eject forward. Using your thumb and forefinger, grasp the SR4000 on the sides and pull up to disengage.





5. Installing/Positioning the Antenna:

For best reception, the supplied antenna should be placed near a window if in the house or, if outdoors, in an open area and as high as possible; some repositioning may be required to achieve optimum results. The following guidelines are recommended:

- In a major city, where Sirius ground repeaters are present, you can usually place the antenna away from a window and still achieve the desired results.
- You can also place the antenna outside (on the roof structure), provided it is clear of any overhead obstructions. Because of the orbiting characteristics of the Sirius Satellites, the strength of the received signal may change over time. In most cases however, the signal should be available continuously. If you experience a loss of signal or audio, reposition the antenna inside the home or outside as necessary.

6. Antenna Placement Considerations

The antenna should be placed on a relatively flat surface whenever possible. When outdoors, the antenna may be left in its mount atop the Boombox provided no overhead obstructions are present.

To mount the antenna:

- Plug the antenna into the ANT connector on the back of the SB4000 Boombox. Leave the antenna in place on the Boombox, or remove the antenna from its mount, uncoil the antenna lead, and place it at the preferred location inside or outside the home. If no audio is heard, move the antenna to different positions until an audio output is heard. This is the desired antenna position.
- After determining the optimum antenna position, turn OFF the SB4000 Boombox and SR4000 Receiver
- Disconnect the power adapter from the wall outlet receptacle.
- Plan the routing of the antenna cable to the SB4000 ANT input when indoors. Make sure you avoid any obstructions that could crimp, kink or twist the cable. If the antenna is mounted outside, route the cable from the antenna position to the interior of the home, working the cable through the basement, under a

window sill, etc. Make adjustments and take up slack whenever necessary.

- Plug the antenna cable into the ANT connector on the back of the SB4000 Boombox.
- If not using battery power as the primary power source, plug the female end of the AC Power Adapter into the DC 12V receptacle on the rear of the SB4000 Boombox.
- Insure that the AC Power Cable is securely inserted into the AC Power Adapter. Plug the AC Power Cable into a 110-volt receptacle. Turn ON the SB4000 Boombox and SR4000 Receiver.

You are now ready to enjoy Sirius programming outdoors or within your home.

SB4000 Specifications

Nominal Output Power per Channel	5 Watts RMS
Total Harmonic Distortion (THD)	0.3% at 1 Watt
Frequency Response	30Hz to 20kHz
Signal-to-Noise Ratio (S/N)	>65dB Maximum
Headphone Output Impedance	32ohms
Headphone Output Level (Variable)	500mV (Maximum)
Headphone Connector Type	3.5mm Stereo Jack (1/8")
Auxiliary Input Impedance	6K ohms (Nominal)
Auxiliary Input Level	2.0 Volts (Maximum)
Auxiliary Connector Type	3.5mm Stereo Jack (1/8")
Battery Type/Qty	"D" Cell / 8 Total
Overall Dimensions	19"(W) x 6-7/8"(D) x 8"(H)
.....	485mm(W) x 176mm(D) x 198mm (H)
Overall AC Adapter Dimensions	4-3/4"(W) x 2-1/2"(D) x 3.-5/32"(H)
.....	120mm(W) x 64mm(D) x 80mm (H)
Weight (Without Batteries)	5.88lbs. (2670g)

Periodic Inspection

The SB4000 Boombox should be inspected periodically for external damage. At least once every 30 days of use, perform the following checks:

1. Inspect the 16-pin Orbiter SR4000 Receiver connector for loose, bent or broken pins, misalignment, etc. Make sure the RF Connector (Antenna) is intact and exhibits no apparent damage.
2. Check the VOL control for freedom of motion without binding of any kind.
3. Check that the Mode Selector push-button operates correctly in that it toggles between the Satellite Radio output and the AUX input.
4. Make sure the antenna connector at the rear of the unit is free from damage of any kind and that the antenna lead plug mates correctly and securely.
5. Make sure the DC 12V input connector at the rear of the unit is also free from damage of any kind and that the AC Power Adapter plug mates correctly and securely.
6. Check the antenna for any physical damage; make sure the antenna cable is secure and not nicked or cut.
7. Inspect the overall Boombox case and speaker grilles for damage such as nicks, scratches, punctures, etc.

Cleaning the SB4000 Boombox

When cleaning the Boombox, make sure the AC Power Adapter is unplugged from the power source. Do not use liquid cleaners or aerosol cleaners. Use a lint-free cloth lightly dampened with water for cleaning the exterior of the Boombox only.

FAULT	PROBABLE CAUSE	REMEDY
System does not turn on	SR4000 Receiver power is set to OFF	Turn SR4000 Receiver power on using the Orbiter Power on/off button
	Batteries not installed or installed incorrectly	Install batteries observing correct polarity
Boombox does not operate using batteries	As long as the AC Power Adapter is attached to the rear panel of the Boombox, battery operation is disabled	Remove power connector from rear panel of the Boombox
Intermittent Operation	Low battery level	Replace batteries
“ANTENNA ERROR” Message	Satellite antenna not connected to Boombox rear panel	Connect satellite antenna to Boombox rear panel
	SR4000 Receiver not firmly seated in cradle	Press the SR4000 Receiver lower left and right sides to ensure that the connectors are firmly mated
“ACQUIRING SIGNAL” Message	Check for obstacles over or around antenna	Change location to eliminate nearby obstacles (bridges, etc.)
No Sound from the Boombox Speakers	Headphones installed	Remove headphones
	Mode Selector push-button is in incorrect position	Press button for desired audio signal (Satellite Radio or AUX input)

12 MONTH LIMITED WARRANTY

Sirius Satellite Radio warrants to the original retail purchaser of this product that should this product or any part thereof, under normal use and conditions, be proven defective in material or workmanship within 12 months from the date of original purchase, such defect(s) will be repaired or replaced with new or reconditioned product (at the Company's option) without charge for parts and repair labor. To obtain repair or replacement within the terms of this Warranty, the product is to be delivered with proof of warranty coverage (e.g. dated bill of sale), specification of defect(s), transportation prepaid, to the location shown below under **WARRANTY RETURN**.

This Warranty does not extend to the elimination of externally generated static or noise, to correction of antenna problems, to costs incurred for installation, removal or reinstallation of the product, or to damage to tapes, compact discs, speakers, accessories, or vehicle electrical systems.

This Warranty does not apply to any product or part thereof which, in the opinion of the Company, has suffered or been damaged through alteration, improper installation, mishandling, misuse, neglect, accident, or by removal or defacement of the factory serial number/bar code label(s). THE EXTENT OF THE COMPANY'S LIABILITY UNDER THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT PROVIDED ABOVE AND, IN NO EVENT, SHALL THE COMPANY'S LIABILITY EXCEED THE PURCHASE PRICE PAID BY PURCHASER FOR THE PRODUCT.

This Warranty is in lieu of all other express warranties or liabilities. ANY IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, SHALL BE LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. ANY ACTION FOR BREACH OF ANY WARRANTY HEREUNDER INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY MUST BE BROUGHT WITHIN A PERIOD OF 48 MONTHS FROM DATE OF ORIGINAL PURCHASE. IN NO CASE SHALL THE COMPANY BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, WHATSOEVER. No person or representative is authorized to assume for the Company any liability other than expressed herein in connection with the sale of this product. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damage so the above limitations or exclusions may not apply to you. This Warranty gives you specific legal rights and you may also have other rights which vary from state to state.

WARRANTY RETURN: To obtain repair or replacement within the terms of this Warranty, please return product to an authorized Orbiter retailer, RadioShack or call (800) 869-5590; proof of purchase and description of defect are required. Products to be returned to an approved warranty station must be shipped freight prepaid.